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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,849	10/29/2003	Satoshi Misaka	501.43211X00	6274

24956 7590 11/21/2006

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
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EXAMINER

SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,849

Applicant(s)

MISAKA ET AL.

Examiner

Suresh K. Suryawanshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 1-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/29/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-16 are presented for examination.

Drawings

2. Figures 16 and 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 1 is objected to because of the following informalities: "the time" should have been "the waiting time" at page 20, lines 14, 16, 18 and 20. Appropriate correction is required.

5. Claim 2 is objected to because of the following informalities: “the time” should have been “the waiting time” at page 30, line 24 and page 31, line 1. Appropriate correction is required.

6. Claim 6 is objected to because of the following informalities: “the time” should have been “the given time” at page 32, line 2. Appropriate correction is required.

7. Claim 12 is objected to because of the following informalities: “event a” should have been “event in a” at page 33, line 9. Appropriate correction is required.

8. Claim 12 is objected to because of the following informalities: “the time” should have been “the given time” at page 33, lines 22, 22 and 24. Appropriate correction is required.

9. Claim 13 is objected to because of the following informalities: “the time” should have been “the given time” at page 34, lines 5 and 8. Appropriate correction is required.

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10. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

-- POWER CONSUMPTION REDUCTION AND QUICKER INTERRUPTION
RESPONSE IN AN INFORMATION PROCESSING DEVICE UTILIZING A FIRST TIMER
AND A SECOND TIMER WHEREIN THE SECOND TIMER IS ONLY CONDITIONALLY
ACTIVATED --.

Reasons for Allowance

11. The following is an examiner's statement of reasons for allowance:

Simms et al (US Patent 6,108,723) discloses a burst-mode transfer over a communication link between devices operating in a block mode. At the beginning of the transfer, the value stored in a first data register corresponds to the total number of bytes of data to be transferred. A second data register holds a value corresponding to the maximum possible number of bytes in a burst. A third data register holds a value corresponding to the actual number of bytes to be transferred in the next burst between the device server and the host bus adapter. A comparator compares the value stored in the first data register with the value stored in the second data register, determines which of the two values is smaller, and outputs the smaller value, which is actual length in bytes of the next burst, into the third register. A subtractor then decrements the value in the first register by the value stored in the third register. The decremented value

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represents the bytes remaining in the transfer. The process is repeated until the entire transfer has been successfully completed and the value in the first data register is zero.

Carobolante et al (US Patent 5,543,697) disclose utilizing a coarse counter and a fine counter in a frequency control loop. In operation, a coarse count is loaded into the coarse counter. Similarly, a fine count is loaded into the fine counter. When a zero crossing is detected by the coarse counter, the coarse counter begins to count down from the coarse count. When the coarse counter has reached zero, the zero flag changes states that causes the fine counter to begin counting down from the fine count.

Wright (US Patent 6,543,000) discloses an interrupt management system includes a first down-counter which decrements in value in response to a clock signal to zero. When the value of the down-counter is equal to zero the down-counter is reset to a predetermined value X and an interrupt request signal is produced. The interrupt management system also include a second down-counter which decrement in value from a predetermined value Y, where $Y > X$, in response to the clock signal.

Takahashi et al (US Patent 6,879,537) disclose an operation control circuit is provided for shortening a transition time from a deep stand-by mode to a stand-by mode utilizing two timers.

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Yoshikawa et al (US Patent 6,317,697) disclose an apparatus for determining life of a battery comprising a first timer which expires in steps of a specified first cycle and a second timer which expires in steps of a second cycle shorter than the first cycle and means for activating the life determination means in steps of the first until the period counting means counts a specified period and activates the life determination means in steps of the second cycle after the period counting means has counted the specified period.

Freed (US Patent 6,971,036) discloses a method of producing a time delay is provided. The method is performed with an information processor having a first timer and a second timer. The method involves using the second timer to measure the timeout for the first timer.

Teruyama (JP 06035716 A) discloses to shorten an interruption response time by starting an interruption processing in response to an interruption request signal while executing an arithmetic operation corresponding to an instruction fetched from an outside bus.

Nakada (JP 05342021 A) discloses to shorten interruption response time by executing a specified task, for which high-speed responsiveness is required, parallelly with the other task.

Nishijima (JP 01276239 A) discloses to widely shorten an interruption response time by deciding an instruction code stored in an instruction register, stopping the updating of a program counter during a fixed instruction cycle and updating one part of the instruction register when fixed conditions are satisfied.

Hirata et al (JP 07006037 A) disclose to provide the instruction decoding device which shortens the interruption response time of a multiple thread processor without impeding the execution of threads that do not relate to an interruption.

The prior art of record does not teach or suggest individually or in combination to assure power consumption reduction and quicker interruption response in an information processing device utilizing a first timer and a second timer wherein the second timer is only conditionally activated.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh K. Suryawanshi whose telephone number is 571-272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

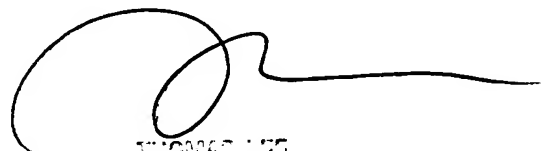
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sks

November 1, 2006



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